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Aphids of Manitoba

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Aphids of Manitoba

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Cover illustration
The dots on the map represent
Agriculture Canada research
establishments.

SUMMARY

This bulletin reports 324 species of aphids collected in Manitoba, and their host plant associations. Aphid and host plant catalogues are included.

RESUMÉ

Cette publication présente la liste de 324 espèces de pucerons collectés dans le Manitoba et leurs hôtes. On présente aussi catalogues de pucerons et des hôtes.

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INTRODUCTION

The aphids are a large group of insect species in the superfamily Aphidoidea in the suborder Homoptera (Blackman and Eastop 1984). About 4000 species are known worldwide (Dixon 1987). Aphids feed on plants by piercing plant tissue and withdrawing plant sap with their straw-like mouthparts. Most species exhibit close associations with a narrow range of related plants and show complex and specific adaptations to their hosts (Dixon 1987). These host plant associations assure that the diversity of aphids in any region depends in part on the diversity of the flora. Over 250 species attack cultivated plants and many have become important agricultural pests (Blackman and Eastop 1984).

This bulletin provides lists of the aphids that have been found in Manitoba, and their associated host plants. These lists are based on aphids in the collection of one of us (A.G.R.). The collecting has been undertaken largely by A.G. Robinson, but also by his students and associates over the past 30 years. Collecting trips have been undertaken to many areas of the province including the north as far as the tundra areas near Churchill, but the fauna of the southern part of the province has been collected more thoroughly. The aphids have been identified primarily by A. G. Robinson, but many other aphid taxonomists have assisted. These experts are listed in the Acknowledgements. Similarly, assistance has been obtained for identifying many of the plant species.

In Manitoba, 324 species of aphid have been identified on approximately 175 species of host plant. The aphid species are listed in alphabetical order followed by their associated hosts in the following List of the Aphids. The aphid names are in accordance with those of Smith and Parron (1978). The host plants on which aphids have been collected are listed in alphabetical order followed by their associated aphids in the following List of the Aphid Host Plants. The plant names are in accordance with Scoggan (1978). The information in these lists is also available from R.J. Lamb as a computerized data base in Lotus 123 accessible on an MS-DOS operating system.

The Province of Manitoba covers a large area with a diverse flora and a variety of vegetative regions. Scoggan (1957) lists about 1400 species of plants as occurring in the province, and describes the vegetative regions and affinities of the plants in the province. There are undoubtedly many as yet undiscovered aphid species in Manitoba, and many unidentified host plant associations. This bulletin provides an updated and much expanded list of the aphids collected in Manitoba as compared to an earlier list (Robinson and Bradley 1968). Similar lists have been prepared for other regions of Canada: the maritime provinces (Pelletier and Boiteau 1986), Quebec (Quednau 1966), Alberta (Harper and Bradley 1987), and British Columbia (Forbes and Chan 1989).

LIST OF THE APHIDS

The aphid species are printed in bold type and listed alphabetically by genus and species, followed by the author of the species. The host plants associated with an aphid are listed following each aphid name in regular type and indented, starting on the next line.

Acyrthosiphon assiniboinensis **Robinson**
Potentilla fruticosa
Acyrthosiphon asterifoliae **(Strom)**
Aster sp.
Acyrthosiphon brachysiphon **Hille Ris Lambers**
Vaccinium sp., by sweeping
Acyrthosiphon brevicorne **Hille Ris Lambers**
Dryas integrifolia
Acyrthosiphon caraganae **(Cholodkovsky)**
Caragana arborescens
Acyrthosiphon churchillense **Robinson**
Hedysarum mackenzii
Oxytropis campestris
Oxytropis leucantha var. hudsonica
Acyrthosiphon lactucae **(Passerini)**
Lactuca canadensis
Lactuca scariola
Acyrthosiphon pisum **(Harris)**
Lathyrus spp.
Pisum spp.
Vicia spp.
Acyrthosiphon pseudodirhodum **(Patch)**
Spiraea sp.
Acyrthosiphon (Metopolophium) dirhodum **(Walker)**
Hordeum vulgare
Rosa sp.
Alloambria caudata **Richards**
fossil
Alphitoaphis lonicericola **(Williams)**
Lonicera dioica
Amphorophora agathonica **Hottes**
Rubus spp.
Amphorophora ampullata laingi **Mason**
Matteucia struthiopteris
Amphorophora stolonis **Robinson**
Rubus pubescens
Anoecia cornicola **(Walsh)**
Cornus stolonifera
Anoecia graminis **Gillette and Palmer**
Hordeum jubatum roots
Anoecia oenotherae **Wilson**
Oenothera biennis roots
Anoecia setariae **Gillette and Palmer**
Equisetum laevigatum roots?

Aphis ***armoraciae*** **Cowen**
Artemisia sp.
Rudbeckia hirta roots
Rudbeckia serotina
Aphis ***asclepiadis*** **Fitch**
Apocynum cannabinum
Apocynum spp.
Aphis ***barberae*** **Robinson**
Arctium minus
Cirsium arvense
Viburnum trilobum
Xanthium strumarium
Rheum rhaponticum
Aphis ***ceanothi*** **Clarke**
Ceanothus ovatus
Aphis ***craccae*** **Linnaeus**
Vicia cracca
Aphis ***decepta*** **Hottes and Frison**
Heracleum lanatum
Aphis ***duckmountainensis*** **Rojanavongse and Robinson**
Senecio pauperculus
Aphis ***fabae*** **Scopoli**
Vicia faba
Euonymus europaeus
Aphis ***farinosa*** **Gmelin**
Salix spp.
Aphis ***forbesi*** **Weed**
Fragaria sp.
Aphis ***gossypii*** **Glover**
Diervilla lonicera
Galium boreale
Monarda fistulosa
Oenothera biennis
Aphis ***helianthi*** **Monell**
Cornus stolonifera
Epilobium angustifolium
Helianthus annuus
Impatiens capensis
Humulus lupulus
Mirabilis hirsuta
Aphis ***heraclella*** **Davis**
Cicuta maculata
Heracleum lanatum
Pastinaca sativa
Sium suave
Aphis ***knowltoni*** **Hottes and Frison**
Taraxacum officinale
Aphis ***maculatae*** **Oestlund**
Cornus stolonifera
Populus tremuloides
Aphis ***madderae*** **Robinson**
Taraxacum lacerum

Aphis ***manitobensis*** **Robinson and Rojanavongse**
Ribes spp.
Aphis ***masoni*** **Richards**
Oxytropis campestris
Oxytropis leucantha var. hudsonica
Aphis ***mimuli*** **Oestlund**
Bidens sp.
Ribes aureum
Aphis ***nasturtii*** **Kaltenbach**
Bidens sp.
Rhamnus sp.
Aphis ***neogillettei*** **Palmer**
Cornus stolonifera
Epilobium angustifolium
Aphis ***neomexicana*** **(Cockerell)**
Ribes spp.
Aphis ***neomonardae*** **Rojanavongse and Robinson**
Agastache foeniculum
Mondarda fistulosa
Aphis ***nerii*** **Boyer de Fonscolombe**
in greenhouse
Aphis ***nivalis*** **Hille Ris Lambers**
Epilobium angustifolium
Aphis ***oenotherae*** **Oestlund**
Oenothera biennis
Oenothera parviflora
Aphis ***oestlundi*** **Gillette**
Oenothera biennis
Oenothera parviflora
Aphis ***pomi*** **DeGeer**
Cotoneaster acutifolia
Malus spp.
Sorbus aucuparia
Aphis ***rubicola*** **Oestlund**
Rubus idaeus var. strigosus
Rubus spp.
Aphis ***rumicis*** **Linnaeus**
Rumex spp.
Aphis ***salicariae*** **Koch**
Cornus stolonifera
Epilobium angustifolium
Aphis ***saniculae*** **Williams**
Sanicula marilandica
Zizia aptera
Aphis ***sedi*** **Kaltenbach**
Sedum sp.
Aphis ***spiraecola*** **Patch**
Apocynum androsaemifolium
Spiraea spp.
Aphis ***thaspii*** **Oestlund**
Cicuta maculata
Zizia aurea

***Aphis varians* Patch**
Epilobium angustifolium
Ribes spp.
***Aphis viburniphila* Patch**
Viburnum rafinesquianum
Viburnum trilobum
***Aphis whiteshellensis* Rojanavongse and Robinson**
Amelanchier alnifolia
***Aphthargelia symphoricarpi* (Thomas)**
Symphoricarpos occidentalis
***Asiphonaphis pruni* Wilson and Davis**
Prunus virginiana
***Aspidaphis adjuvans* (Walker)**
Polygonum aviculare
***Aspidaphium utahensis* Smith and Knowlton**
moss in Berlese funnel
***Atarsos grindeliae* Gillette**
Grindelia squarrosa
***Aulacorthum solani* (Kaltenbach)**
Pelargonium sp.
***Betulaphis quadrituberculata* (Kaltenbach)**
Betula papyrifera
***Boernerina variabilis* Richards**
Alnus sp.
***Brachycaudus rociadae* (Cockerell)**
garden delphinium
***Brevicoryne brassicae* (Linnaeus)**
Brassica oleracea brussels sprouts and cabbage in storage
***Calaphis betulaecolens* (Fitch)**
Betula papyrifera
***Calaphis manitobensis* Richards**
Betula glandulosa
***Calaphis viridipallida* Palmer**
Betula papyrifera
***Callipterinella callipterus* (Hartig)**
Betula sp.
***Capitophorus elaeagni* (Del Guercio)**
Cirsium spp.
Sonchus spp.
***Capitophorus hippophaes* (Walker)**
Polygonum persicaria
***Capitophorus hudsonicus* Robinson**
Shepherdia canadensis (probably)
***Capitophorus xanthii* (Oestlund)**
Xanthium strumarium
***Catamergus kickapoo* (Hottes and Frison)**
Polygonatum canaliculatum
***Cavariella aegopodii* (Scopoli)**
cultivated dill
Salix sp.
***Cavariella aquatica* (Gillette and Bragg)**
Salix planifolia

Cavariella konoi **Takahashi**
Cicuta maculata
Cicuta mackenzieana
Salix planifolia
Salix sp.
Cavariella pastinacae **(Linnaeus)**
Heracleum lanatum
Cavariella salicis **(Monell)**
Sium suave
Cepegilletea betulaefoliae **Granovsky**
Betula papyrifera
Ceruraphis viburnicola **(Gillette)**
Viburnum opulus
Chaetosiphon scalaris **Richards**
Potentilla fruticosa
Chaetosiphon (Pentatrichopus) fragaefolii **(Cockerell)**
Rosa spp.
Chaetosiphon (Pentatrichopus) minor **(Forbes)**
Fragaria spp.
Chaitophorus essigi **Gillette and Palmer**
Populus spp.
Chaitophorus essigi subsp. neglectus **Hottes and Frison**
Populus spp.
Chaitophorus macrostachyae **(Essig)**
Salix sp.
Chaitophorus nigrae **Oestlund**
Salix spp.
Chaitophorus nigricentrus **Richards**
Salix sp.
Chaitophorus nudus **Richards**
Populus tremuloides
Chaitophorus populialbae **(Boyer de Fonscolombe)**
Populus sp.
Chaitophorus populicola **Thomas**
Populus spp.
Chaitophorus pusillus **Hottes and Frison**
Salix planifolia
Chaitophorus saliciniger **(Knowlton)**
Salix sp.
Chaitophorus stevensis **Sanborn**
Populus sp.
Chaitophorus viminalis **Monell**
Salix planifolia
Cinara banksiana **Pepper and Tissot**
Pinus banksiana
Cinara braggii **(Gillette)**
Picea glauca
Cinara canatra **Hottes and Bradley**
Pinus banksiana
Cinara coloradensis **(Gillette)**
Picea glauca
Cinara fornacula **Hottes**

Picea glauca

***Cinara harmonia* Hottes**

Pinus resinosa

***Cinara hottesi* (Gillette and Palmer)**

Picea glauca

***Cinara juniperi* (DeGeer)**

Juniperus communis

***Cinara laricifex* (Fitch)**

Larix laricina

***Cinara obscura* Bradley**

Picea glauca

***Cinara ontarioensis* Bradley**

Pinus banksiana

***Cinara pergandei* (Wilson)**

Pinus banksiana

***Cinara petersoni* Bradley**

Juniperus horizontalis

***Cinara pinea* (Mordvilko)**

Pinus sp.

***Cinara spiculosa* Bradley**

Larix laricina

***Cinara strobi* (Fitch)**

Pinus strobus (reared in greenhouse)

***Cinara subterranea* Bradley**

Larix laricina

***Colopha ulmicola* (Fitch)**

Ulmus americana

***Coloradoa absinthii* (Lichtenstein)**

Artemisia sp.

***Coloradoa artemisiae* (Del Guercio)**

Artemisia sp.

***Cryptaphis bromi* Robinson**

Bromus inermis

***Cryptomyzus ribis* (Linnaeus)**

Stachys palustris

Teucrium occidentale

***Diuraphis (Holcaphis) frequens* (Walker)**

Agropyron repens

***Diuraphis (Holcaphis) tritici* (Gillette)**

Triticum aestivum

***Drepanaphis acerifoliae* (Thomas)**

Acer saccharinum

***Drepanaphis spicata* Smith**

Acer spicatum

***Dysaphis tulipae* (Boyer de Fonscolombe)**

tulip bulbs

***Epameibaphis frigidae* (Oestlund)**

Artemisia frigida

***Eriosoma americanum* (Riley)**

Ulmus americana

Amelanchier alnifolia

***Eriosoma crataegi* (Oestlund)**

Crataegus sp.
***Eriosoma lanigerum* (Hausmann)**
Malus sp.
Ulmus sp.
***Eucallipterus tiliae* (Linnaeus)**
Tilia americana
***Euceraphis betulae* (Koch)**
Betula spp.
***Euceraphis gillettei* Davidson**
Alnus spp.
Betula sp.
***Fimbriaphis wakibae* (Hottes)**
Rubus pubescens
***Forda formicaria* Heyden**
Poa pratensis
***Forda marginata* Koch**
Agropyron repens
Poa pratensis
***Glabromyzus crataegi* (Monell)**
Crataegus sp.
***Glabromyzus howardi* (Wilson)**
Agrostis sp.
***Glabromyzus rhois* (Monell)**
Rhus glabra
***Glyphina setosa* MacGillivray**
yellow trap
***Gypsoaphis oestlundi* (Hottes)**
Lonicera dioica
***Hamamelistes spinosus* Shimer**
Betula spp.
***Hayhurstia atriplicis* (Linnaeus)**
Chenopodium album
***Hoplochaitophorus quercicola* (Monell)**
Quercus macrocarpa
***Hyadaphis foeniculi* (Passerini)**
Sium suave
Zizia aurea
***Hyadaphis tataricae* (Aizenberg)**
Lonicera tatarica
***Hyalomyzus monardae* (Davis)**
Monarda fistulosa
***Hyalopterus pruni* (Geoffroy)**
Phragmites communis
Prunus spp.
***Hyperomyzus lactucae* (Linnaeus)**
Ribes spp.
Sonchus arvensis
***Hyperomyzus pallidus* Hille Ris Lambers**
Ribes spp.
Sonchus arvensis
***Hyperomyzus (Neonasonovia) inflata* (Richards)**
suction trap

Hyperomyzus (Neonasonovia) nabali (Oestlund)
Prenanthes alba
Ribes sp.
Hyperomyzus (Neonasonovia) ribiellus (Davis)
Ribes spp.
Hyperomyzus (Neonasonovia) sandilandica (Robinson)
Crepis tectorum
Hysteroneura setariae (Thomas)
Prunus spp.
Illinoia alni (Mason)
Alnus sp.
Illinoia azaleae (Mason)
Ledum sp.
Illinoia canadensis (MacGillivray)
Myrica gale
Illinoia goldamaryae (Knowlton)
Erigeron sp.
Solidago sp.
Illinoia grindeliae subsp. palmerae (MacGillivray)
Grindelia squarrosa
Illinoia richardsi (MacGillivray)
Anaphalis margaritacea
Illinoia simpsoni (MacGillivray)
Linnaea borealis
Illinoia spiraecola (Patch)
Spiraea sp.
Illinoia wahnaga (Hottes)
Convallaria majalis
Smilacina sp.
Illinoia (Masonaphis) paqueti (MacGillivray)
Ledum groenlandicum
Illinoia (Masonaphis) pinawae (Robinson)
Ledum groenlandicum
Illinoia (Oestlundia) rubicola (Oestlund)
Rubus sp.
Iziphya spenceri Richards
sweeping
Iziphya vittata Richards
sweeping
Lachnus allegheniensis McCook
Quercus macrocarpa
Lipaphis erysimi (Kaltenbach)
rapeseed
buckwheat
Longistigma caryae (Harris)
Tilia americana
Macrosiphoniella absinthii (Linnaeus)
Artemisia absinthium
Macrosiphoniella frigidicola Gillette and Palmer
Artemisia frigida
Macrosiphoniella ludovicianae (Oestlund)
Artemisia ludoviciana

Macrosiphoniella paucisetosa Robinson
Artemisia ?abrotanum
Macrosiphoniella pennsylvanicum (Pepper)
Achillea millefolium
Macrosiphoniella tanacetaria (Kaltenbach)
Tanacetum vulgare
Macrosiphoniella tapuskae (Hottes and Frison)
Achillea millefolium
Macrosiphum californicum (Clarke)
Salix sp.
Macrosiphum diervillae Patch
Diervilla lonicera
Macrosiphum euphorbiae (Thomas)
Rosa sp.
Macrosiphum geranii (Oestlund)
Geranium pratense
Macrosiphum hamiltoni Robinson
Humulus lupulus
Macrosiphum jeanae Robinson
Sarracenia purpurea
Macrosiphum pseudocoryli Patch
Corylus sp.
Macrosiphum pseudorosae Patch
Eupatorium maculatum
Ranunculus sp.
Rosa sp.
Macrosiphum rosae (Linnaeus)
Rosa sp.
Macrosiphum subarcticum Robinson
Epilobium angustifolium
Macrosiphum tiliae (Monell)
Tilia americana
Macrosiphum (Neocorylobium) coryli Davis
Corylus cornuta
Maculolachnus sijpkensis Hille Ris Lambers
Rosa sp.
Mastopoda pteridis Oestlund
Pteridium aquilinum
Meliarhizophagus fraxinifolii (Riley)
Fraxinus pennsylvanica
Microlophium carnosum (Buckton)
Urtica dioica
Microsiphoniella artemisiae (Gillette)
Artemisia sp.
Mindarus abietinus Koch
Abies balsamea
Mindarus obliquus (Cholodkovsky)
Picea glauca
Misturaphis shiloensis Robinson
Artemisia caudata
Mordvilkoja vagabunda (Walsh)
Populus sp.

Myzaphis rosarum (Kaltenbach)
Potentilla fruticosa
Myzocallis discolor (Monell)
Quercus macrocarpa
Myzocallis punctatus (Monell)
Quercus macrocarpa
Myzocallis asclepiadis (Monell)
Asclepias sp.
Myzodium modestum (Hottes)
moss
Myzus cerasi (Fabricius)
Prunus pensylvanica
Prunus virginiana
Myzus certus (Walker)
Arenaria peploides
Myzus persicae (Sulzer)
greenhouse plants
Nasonovia (Eokakimia) wahinkae robinsoni (Richards)
cultivated delphinium
Nasonovia (Kakimia) aquilegiae (Essig)
Aquilegia sp.
Nasonovia (Kakimia) borealis Heie
Heuchera spp.
Nasonovia (Kakimia) castelleiae (Sampson)
Castilleja spp.
Nasonovia (Kakimia) cynosbati (Oestlund)
Ribes spp.
Nasonovia (Kakimia) houghtonensis similis Heie
Ribes spp.
Nasonovia (Kakimia) vockerothi (Richards)
Saxifraga tricuspidata
Nasonovia (Kakimia) williamsi Heie
Potentilla arguta
Nasonovia (Ranakimia) purpurascens (Oestlund)
Thalictrum sp.
Nearctaphis bakeri (Cowen)
clover
Nearctaphis clydesmithi Hille Ris Lambers
Crataegus sp.
Nearctaphis crataegifoliae (Fitch)
Crataegus sp.
Nearctaphis sensoriata (Gillette and Bragg)
Amelanchier alnifolia
Cotoneaster acutifolia
Neoprociphilus aceris (Monell)
Smilax herbacea
Neosymydobius mimicus Hottes
Quercus macrocarpa
Obtusicauda frigidae (Oestlund)
Artemisia sp.
Oestlundiella flava (Davidson)
Alnus sp.

Ovatus valuliae (Robinson)
Fragaria sp.
Pemphigus betae Doane
Populus sp.
roots of sugar beets
Pemphigus junctisensoriatus Maxson
Populus deltoides
Pemphigus monophagus Maxson
Populus balsamifera
Pemphigus nortonii Maxson
Populus deltoides
Pemphigus populicaulis Fitch
Populus deltoides
Pemphigus populiglobuli Fitch
Populus balsamifera
Pemphigus populiramulorum Riley
Populus balsamifera
Pemphigus populitransversus Riley
Populus balsamifera
Pemphigus populivenae Fitch
Populus sp.
Periphyllus negundinis (Thomas)
Acer negundo
Phorodon humuli (Shrank)
Humulus lupulus
Pleotrichophorus gnaphalodes (Palmer)
Artemisia sp.
Pleotrichophorus hottesi Hille Ris Lambers
Achillea millefolium
Pleotrichophorus patonkus (Hottes and Frison)
Achillea millefolium
Pleotrichophorus pseudoglandulosus (Palmer)
Artemisia tridentata
Pleotrichophorus pseudopatonkus Corpuz-Raros and Cook
Achillea millefolium
Pleotrichophorus villosae Robinson
Chrysopsis villosa
Prociphilus erigeronensis (Thomas)
roots of grass
Prociphilus (Paraprociphilus) tessellatus (Fitch)
Acer saccharinum
Alnus rugosa
Alnus crispa
Pseudacaudella rubida (Borner)
moss
Pseudocercidis rosae Richards
Rosa spp.
Pseudoepameibaphis glauca Gillette and Palmer
Artemisia sp.
Pseudopterocomma canadensis Richards
Populus tremuloides
Pterocallis alnifoliae (Fitch)

Alnus sp.
***Pterocomma bicolor* (Oestlund)**
Populus balsamifera
***Pterocomma populifoliae* (Fitch)**
Populus tremuloides
***Pterocomma smithiae* (Monell)**
Salix sp.
***Rhodobium porosum* (Sanderson)**
Rosa sp.
***Rhopalomyzus grabhami* (Cockerell)**
Lonicera involucrata
***Rhopalomyzus poae* (Gillette)**
Lonicera sp.
***Rhopalomyzus (Judenkoa) lonicerae* (Siebold)**
Lonicera sp.
***Rhopalosiphoninus (Myzosiphon) solani* (Thomas)**
sweeping
***Rhopalosiphoninus (Myzosiphon) staphyleae subsp. tulipaella* (Theobald)**
yellow pan trap
***Rhopalosiphum cerasifoliae* (Fitch)**
Prunus virginiana
***Rhopalosiphum enigmae* Hottes and Frison**
Typha latifolia
***Rhopalosiphum insertum* (Walker)**
Crataegus sp.
Malus sp.
grains and grasses
***Rhopalosiphum maidis* (Fitch)**
Zea mays
***Rhopalosiphum nigrum* Richards**
Crataegus sp.
Zizania aquatica
***Rhopalosiphum nymphaeae* (Linnaeus)**
Potamogeton sp.
***Rhopalosiphum padi* (Linnaeus)**
Prunus virginiana
grains and grasses
***Rhopalosiphum rufulum* Richards**
Crataegus sp.
***Schizaphis graminum* (Rondani)**
grains and grasses
***Schizaphis viridirubra* (Gillette and Palmer)**
Scirpus atrovirens
***Sipha flava* (Forbes)**
sweeping
***Sipha glyceriae* (Kaltenbach)**
Glyceria sp.
***Sipha (Rungsia) elegans* Del Guercio**
Agropyron repens
***Sitobion avenae* (Fabricius)**
grains and grasses

Sitobion manitobensis Robinson
Cornus stolonifera
Sitobion pterícolens (Patch)
Pteridium aquilinum
Sitobion woodsiae Robinson
Woodsia ilvensis
Stagona xylostei (De Geer)
Lonicera sp.
Stegophylla querci (Fitch)
Quercus macrocarpa
Symydobius americanus Baker
Betula papyrifera
Tamalia coweni (Cockerell)
Arctostaphylos uva-ursi
Tetraneura ulmi (Linnaeus)
Hordeum jubatum roots
Thecabius affinis (Kaltenbach)
Populus balsamifera
Thecabius (Parathecabius) gravicornis (Patch)
Populus balsamifera
Thecabius (Parathecabius) populimonilis (Riley)
Populus balsamifera
Therioaphis trifolii (Monell)
clover
Thripsaphis (Trichocallis) cyperi (Walker)
sweeping
Tinocallis ulmifolii (Monell)
Ulmus americana
Trama rara Mordvilko
Taraxacum officinale
Tuberolachnus salignus (Gmelin)
Salix sp.
Uroleucon (Lambersius) brevitarsus (Robinson)
Solidago sp.
Uroleucon (Lambersius) caligatus (Richards)
Solidago sp.
Uroleucon (Lambersius) carberriensis Robinson
Chrysopsis villosa
Uroleucon (Lambersius) erigeronensis (Thomas)
Erigeron canadensis
Uroleucon (Lambersius) escalantii (Knowlton)
Aster laevis
Uroleucon (Lambersius) gravicorne (Patch)
Solidago sp.
Uroleucon (Lambersius) macgillivrayae (Olive)
Aster sp.
Solidago sp.
Uroleucon (Lambersius) manitobensis Robinson
Aster puniceus
Uroleucon (Lambersius) richardsi (Robinson)
Grindelia squarrosa
Uroleucon (Lambersius) tenuitarsum (Gillette and Palmer)

Aster sp.

Uroleucon (Uroleucon) ambrosiae (Thomas)
Ambrosia sp.
Iva sp.

Uroleucon (Uroleucon) arnesense Robinson
Solidago sp.

Uroleucon (Uroleucon) astronomus (Hille Ris Lambers)
purple aster

Uroleucon (Uroleucon) chrysanthemi (Oestlund)
Bidens sp.

Uroleucon (Uroleucon) cirsii (Linnaeus)
Cirsium arvense

Uroleucon (Uroleucon) deltense Robinson
Lactuca pulchella

Uroleucon (Uroleucon) eupatoricolens (Patch)
Eupatorium maculatum

Uroleucon (Uroleucon) gigantiphagum Moran
Solidago sp.

Uroleucon (Uroleucon) hieracicola Hille Ris Lambers
Hieracium sp.

Uroleucon (Uroleucon) ivae Robinson
Iva xanthifolia

Uroleucon (Uroleucon) maximilianicola Robinson
Helianthus maximiliani

Uroleucon (Uroleucon) nigrotibium (Olive)
Solidago sp.

Uroleucon (Uroleucon) nigrotuberculatum (Olive)
Solidago sp.

Uroleucon (Uroleucon) obscuricaudatum (Olive)
Helianthus sp.
Heliopsis helianthoides var. scabra

Uroleucon (Uroleucon) olivei Moran
Aster sp.

Uroleucon (Uroleucon) paucosensoriatum (Hille Ris Lambers)
Aster sp.

Uroleucon (Uroleucon) pepperi (Olive)
Cirsium sp.

Uroleucon (Uroleucon) pieloui (Richards)
Solidago sp.

Uroleucon (Uroleucon) rudbeckiae (Fitch)
Rudbeckia laciniata

Uroleucon (Uroleucon) russellae (Hille Ris Lambers)
Anaphalis margaritacea

Uroleucon (Uroleucon) solirostratum (Richards)
Solidago sp.

Uroleucon (Uromelan) helianthicola (Olive)
Helianthus maximiliani

Uroleucon (Uromelan) taraxaci (Kaltenbach)
Taraxacum officinale

Utamphorophora humboldti (Essig)
Physocarpus opulifolius

Wahlgreniella nervata (Gillette)

Rosa sp.
Wahlgreniella vaccinii (Theobold)
Vaccinium sp.

LIST OF THE APHID HOST PLANTS

The aphid host plants are printed in bold type and listed alphabetically by genus and species. The aphids associated with a host are listed following each host plant name in regular type and indented, starting on the next line.

Abies balsamea
Mindarus abietinus
Acer negundo
Periphyllus negundinis
Acer saccharinum
Prociphilus (Paraprociphilus) tessellatus
Drepanaphis acerifoliae
Acer spicatum
Drepanaphis spicata
Macrosiphoniella pennsylvanicum
Pleotrichophorus pseudopatonkus
Pleotrichophorus hottesi
Pleotrichophorus patonkus
Macrosiphoniella tapuskae
Agastache foeniculum
Aphis neomonardae
Agropyron repens
Diuraphis (Holcaphis) frequens
Forda marginata
Sipha (Rungsia) elegans
Agrostis sp.
Glabromyzus howardi
Alnus rugosa
Prociphilus (Paraprociphilus) tessellatus
Alnus spp.
Euceraphis gillettei
Pterocallis alnifoliae
Illinoia alni
Boernerina variabilis
Oestlundiella flava
Alnus crispa
Prociphilus (Paraprociphilus) tessellatus
Ambrosia sp.
Uroleucon (Uroleucon) ambrosiae
Amelanchier alnifolia
Eriosoma americanum
Aphis whiteshellensis
Nearctaphis sensoriata
Anaphalis margaritacea
Uroleucon (Uroleucon) russellae
Illinoia richardsi
Apocynum androsaemifolium
Aphis spiraecola
Apocynum cannabinum
Aphis asclepiadis

Apocynum spp.
Aphis asclepiadis
Aquilegia sp.
Nasonovia (Kakimia) aquilegiae
Arctium minus
Aphis barberae
Arctostaphylos uva-ursi
Tamalia coweni
Arenaria peploides
Myzus certus
Artemisia absinthium
Macrosiphoniella absinthii
Artemisia caudata
Misturaphis shiloensis
Artemisia frigida
Macrosiphoniella frigidicola
Epameibaphis frigidae
Artemisia ludoviciana
Macrosiphoniella ludovicianae
Artemisia sp.
Microsiphoniella artemisiae
Pleotrichophorus gnaphalodes
Aphis armoraciae
Coloradoa absinthii
Obtusicauda frigidae
Coloradoa artemisiae
Pseudoepameibaphis glauca
Artemisia tridentata
Pleotrichophorus pseudoglandulosus
Artemisia ?abrotanum
Macrosiphoniella paucisetosa
Asclepias sp.
Myzocallis asclepiadis
Aster laevis
Uroleucon (Lambersius) escalantii
Aster puniceus
Uroleucon (Lambersius) manitobensis
Aster sp.
Acyrthosiphon asterifoliae
Uroleucon (Uroleucon) olivei
Uroleucon (Lambersius) macgillivrayae
Uroleucon (Uroleucon) paucosensoriatum
Uroleucon (Lambersius) tenuitarsum
Betula glandulosa
Calaphis manitobensis
Betula papyrifera
Calaphis betulaecolens
Symydobius americanus
Calaphis viridipallida
Cepegilletea betulaefoliae
Betulaphis quadrituberculata
Betula spp.

Hamamelistes spinosus
Euceraphis betulae
Euceraphis gillettei
Callipterinella callipterus

Bidens sp.
Aphis nasturtii
Uroleucon (Uroleucon) chrysanthemi
Aphis mimuli

Brassica oleracea
Brevicoryne brassicae

Bromus inermis
Cryptaphis bromi

Caragana arborescens
Acyrthosiphon caraganae

Castilleja spp.
Nasonovia (Kakimia) castelleiae

Ceanothus ovatus
Aphis ceanothi

Chenopodium album
Hayhurstia atriplicis

Chrysopsis villosa
Pleotrichophorus villosae
Uroleucon (Lambersius) carberriensis

Cicuta mackenzieana
Cavariella konoi

Cicuta maculata
Cavariella konoi
Aphis heraclella
Aphis thaspii

Cirsium arvense
Uroleucon (Uroleucon) cirsii
Aphis barberae

Cirsium spp.
Capitophorus elaeagni
Uroleucon (Uroleucon) pepperi

Convallaria majalis
Illinoia wahnaga

Cornus stolonifera
Aphis neogillettei
Sitobion manitobensis
Aphis helianthi
Anoecia cornicola
Aphis salicariae
Aphis maculatae

Corylus cornuta
Macrosiphum (Neocorylobium) coryli

Corylus sp.
Macrosiphum pseudocoryli

Cotoneaster acutifolia
Nearctaphis sensoriata
Aphis pomi

Crataegus sp.

Rhopalosiphum nigrum
Nearctaphis crataegifoliae
Glahromyzus crataegi
Eriosoma crataegi
Rhopalosiphum insertum
Nearctaphis clydesmithi
Rhopalosiphum rufulum

Crepis tectorum
Hyperomyzus (Neonasonovia) sandilandica

Diervilla lonicera
Macrosiphum diervillae
Aphis gossypii

Dryas integrifolia
Acyrthosiphon brevicorne

Epilobium angustifolium
Aphis salicariae
Aphis neogillettei
Aphis varians
Aphis nivalis
Macrosiphum subarcticum
Aphis helianthi

Equisetum laevigatum
Anoecia setariae

Erigeron canadensis
Uroleucon (Lambersius) erigeronensis

Erigeron sp.
Illinoia goldamaryae

Euonymus europaeus
Aphis fabae

Eupatorium maculatum
Uroleucon (Uroleucon) eupatoricolens
Macrosiphum pseudorosae

Fragaria spp.
Chaetosiphon (Pentatrichopus) minor
Aphis forbesi
Ovatus valuliae

Fraxinus pennsylvanica
Meliarhizophagus fraxinifolii

Galium boreale
Aphis gossypii

Geranium pratense
Macrosiphum geranii

Glyceria sp.
Sipha glyceriae

Grindelia squarrosa
Illinoia grindeliae subsp. palmerae
Uroleucon (Lambersius) richardsi
Atarsos grindeliae

Hedysarum mackenzii
Acyrthosiphon churchillense

Helianthus annuus
Aphis helianthi

Helianthus maximiliani
Uroleucon (Uroleucon) maximilianicola
Uroleucon (Uromelan) helianthicola
Helianthus sp.
Uroleucon (Uroleucon) obscuricaudatum
Heliopsis helianthoides var. scabra
Uroleucon (Uroleucon) obscuricaudatum
Heracleum lanatum
Cavariella pastinacae
Aphis decepta
Aphis heraclella
Heuchera spp.
Nasonovia (Kakimia) borealis
Hieracium sp.
Uroleucon (Uroleucon) hieracicola
Hordeum jubatum
Tetraneura ulmi
Anoecia graminis
Hordeum vulgare
Acyrthosiphon (Metopolophium) dirhodum
Humulus lupulus
Macrosiphum hamiltoni
Aphis helianthi
Phorodon humuli
Impatiens capensis
Aphis helianthi
Iva sp.
Uroleucon (Uroleucon) ambrosiae
Iva xanthifolia
Uroleucon (Uroleucon) ivae
Juniperus communis
Cinara juniperi
Juniperus horizontalis
Cinara petersoni
Lactuca canadensis
Acyrthosiphon lactucae
Lactuca pulchella
Uroleucon (Uroleucon) deltense
Lactuca scariola
Acyrthosiphon lactucae
Larix laricina
Cinara laricifex
Cinara spiculosa
Cinara subterranea
Lathyrus spp.
Acyrthosiphon pisum
Ledum groenlandicum
Illinoia (Masonaphis) pinawae
Illinoia (Masonaphis) paqueti
Ledum sp.
Illinoia azaleae
Linnaea borealis

Illinoia simpsoni

Lonicera dioica

Gypsoaphis oestlundi
Alphitoaphis lonicericola

Lonicera involucrata

Rhopalomyzus grabhami

Lonicera sp.

Rhopalomyzus poae
Rhopalomyzus (Judenkoa) lonicerae
Stagona xylostei

Lonicera tatarica

Hyadaphis tataricae

Malus spp.

Aphis pomi
Eriosoma lanigerum
Rhopalosiphum insertum

Matteucia struthiopteris

Amphorophora ampullata laingi

Mirabilis hirsuta

Aphis helianthi

Monarda fistulosa

Hyalomyzus monardae
Aphis gossypii
Aphis neomonardae

Myrica gale

Illinoia canadensis

Oenothera biennis

Anoecia oenotherae
Aphis oestlundi
Aphis gossypii
Aphis oenotherae

Oenothera parviflora

Aphis oenotherae
Aphis oestlundi

Oxytropis campestris

Acyrthosiphon churchillense
Aphis masoni

Oxytropis leucantha var. hudsonica

Acyrthosiphon churchillense
Aphis masoni

Pastinaca sativa

Aphis heraclella

Pelargonium sp.

Aulacorthum solani

Phragmites communis

Hyalopterus pruni

Physocarpus opulifolius

Utamphorophora humboldti

Picea glauca

Mindarus obliquus
Cinara braggii
Cinara coloradensis

Cinara fornacula
Cinara hottesi
Cinara obscura

Pinus banksiana

Cinara pergandei
Cinara ontarioensis
Cinara canatra
Cinara banksiana

Pinus resinosa

Cinara harmonia

Pinus sp.

Cinara pinea

Pinus strobus

Cinara strobi

Pisum spp.

Acyrthosiphon pisum

Poa pratensis

Forda formicaria
Forda marginata

Polygonatum canaliculatum

Catamergus kickapoo

Polygonum aviculare

Aspidaphis adjuvans

Polygonum persicaria

Capitophorus hippophaes

Populus balsamifera

Thecabius (Parathecabius) gravicornis
Pemphigus populiglobuli
Pemphigus populitransversus
Thecabius (Parathecabius) populimonilis
Thecabius affinis
Pterocomma bicolor
Pemphigus populiramulorum
Pemphigus monophagus

Populus deltoides

Pemphigus junctisensoriatus
Pemphigus nortonii
Pemphigus populicaulis

Populus spp.

Chaitophorus essigi
Chaitophorus populicola
Chaitophorus essigi subsp. neglectus
Mordvilkoja vagabunda
Chaitophorus populialbae
Pemphigus betae
Pemphigus populivenae
Chaitophorus stevensis

Populus tremuloides

Aphis maculatae
Pseudopterocomma canadensis
Pterocomma populifoliae
Chaitophorus nudus

Potamogeton sp.
Rhopalosiphum nymphaeae
Potentilla arguta
Nasonovia (Kakimia) williamsi
Potentilla fruticosa
Myzaphis rosarum
Acyrthosiphon assiniboinensis
Chaetosiphon scalaris
Prenanthes alba
Hyperomyzus (Neonasonovia) nabali
Prunus pensylvanica
Myzus cerasi
Prunus spp.
Hysteroneura setariae
Hyalopterus pruni
Prunus virginiana
Rhopalosiphum padi
Rhopalosiphum cerasifoliae
Asiphonaphis pruni
Myzus cerasi
Pteridium aquilinum
Mastopoda pteridis
Sitobion ptericolens
Quercus macrocarpa
Lachnus allegheniensis
Stegophylla querci
Myzocallis discolor
Myzocallis punctatus
Hoplochaitophorus quercicola
Neosymydobius mimicus
Ranunculus sp.
Macrosiphum pseudorosae
Rhamnus sp.
Aphis nasturtii
Rheum rhaponticum
Aphis barberae
Rhus glabra
Glabromyzus rhois
Ribes aureum
Aphis mimuli
Ribes spp.
Hyperomyzus pallidus
Nasonovia (Kakimia) houghtonensis similis
Hyperomyzus (Neonasonovia) ribiellus
Nasonovia (Kakimia) cynosbati
Aphis neomexicana
Aphis manitobensis
Aphis varians
Hyperomyzus lactucae
Hyperomyzus (Neonasonovia) nabali
Rosa spp.
Pseudocercidis rosae

Chaetosiphon (Pentatrichopus) fragaefolii
Wahlgreniella nervata
Maculolachnus sijpkensis
Acyrthosiphon (Metopolophium) dirhodum
Macrosiphum pseudorosae
Macrosiphum rosae
Rhodobium porosum
Macrosiphum euphorbiae

Rubus pubescens
Amphorophora stolonis
Fimbriaphis wakibae

Rubus spp.
Aphis rubicola
Amphorophora agathonica
Illinoia (Oestlundia) rubicola

Rubus idaeus var.strigosus
Aphis rubicola

Rudbeckia hirta
Aphis armoraciae

Rudbeckia laciniata
Uroleucon (Uroleucon) rudbeckiae

Rudbeckia serotina
Aphis armoraciae

Rumex spp.
Aphis rumicis

Salix planifolia
Chaitophorus pusillus
Chaitophorus viminalis
Cavariella aquatica
Cavariella konoi

Salix spp.
Chaitophorus nigrae
Aphis farinosa
Chaitophorus saliciniger
Macrosiphum californicum
Chaitophorus nigricentrus
Pterocomma smithiae
Tuberolachnus salignus
Cavariella konoi
Cavariella aegopodii
Chaitophorus macrostachyae

Sanicula marilandica
Aphis saniculae

Sarracenia purpurea
Macrosiphum jeanae

Saxifraga tricuspidata
Nasonovia (Kakimia) vockerothi

Scirpus atrovirens
Schizaphis viridirubra

Sedum sp.
Aphis sedi

Senecio pauperculus

Aphis duckmountainensis

Shepherdia canadensis

Capitophorus hudsonicus

Sium suave

Aphis heraclella
Cavariella salicis
Hyadaphis foeniculi

Smilacina sp.

Illinoia wahnaga

Smilax herbacea

Neoprociphilus aceris

Solidago sp.

Uroleucon (Uroleucon) solirostratum
Uroleucon (Uroleucon) gigantiphagum
Uroleucon (Lambersius) macgillivrayae
Uroleucon (Uroleucon) pieloui
Uroleucon (Uroleucon) nigrotuberculatum
Uroleucon (Uroleucon) nigrotibium
Uroleucon (Lambersius) brevitarsus
Uroleucon (Lambersius) caligatus
Uroleucon (Uroleucon) arnesense
Uroleucon (Lambersius) gravicorne
Illinoia goldamaryae

Sonchus arvensis

Hyperomyzus pallidus
Hyperomyzus lactucae

Sonchus spp.

Capitophorus elaeagni

Sorbus aucuparia

Aphis pomi

Spiraea spp.

Aphis spiraephila
Aphis spiraecola
Illinoia spiraecola
Acyrthosiphon pseudodirhodum

Stachys palustris

Cryptomyzus ribis

Symphoricarpos occidentalis

Aphthargelia symphoricarpi

Tanacetum vulgare

Macrosiphoniella tanacetaria

Taraxacum lacerum

Aphis madderae

Taraxacum officinale

Trama rara
Aphis knowltoni
Uroleucon (Uromelan) taraxaci

Teucrium occidentale

Cryptomyzus ribis

Thalictrum sp.

Nasonovia (Ranakimia) purpurascens

Tilia americana

Macrosiphum tiliae
Eucallipterus tiliae
Longistigma caryae

Triticum aestivum
Diuraphis (Holcaphis) tritici

Typha latifolia
Rhopalosiphum enigmae

Ulmus americana
Tinocallis ulmifolii
Colopha ulmicola
Eriosoma americanum

Ulmus sp.
Eriosoma lanigerum

Urtica dioica
Microlophium carnosum

Vaccinium sp.
Wahlgreniella vaccinii
Acyrthosiphon brachysiphon

Viburnum opulus
Ceruraphis viburnicola

Viburnum rafinesquianum
Aphis viburniphila

Viburnum trilobum
Aphis viburniphila
Aphis barberae

Vicia cracca
Aphis craccae

Vicia faba
Aphis fabae

Vicia spp.
Acyrthosiphon pisum

Woodsia ilvensis
Sitobion woodsiae

Xanthium strumarium
Capitophorus xanthii
Aphis barberae

Zea mays
Rhopalosiphum maidis

Zizania aquatica
Rhopalosiphum nigrum

Zizia aptera
Aphis saniculae

Zizia aurea
Aphis thaspii
Hyadaphis foeniculi

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